

GSAS-26,415

PATENT

METHOD AND APPARATUS FOR THERMO-PLASTIC COMPOSITE WOOD**ABSTRACT OF THE DISCLOSURE**

[0078] A first quantity of wood chips having long axes and a first size range is mixed with a second quantity of wood particles having a second size and a third quantity of molten thermoplastic polymer until substantially all of the chips and particles are encapsulated by the polymer. The second size range is distinct from the first size range and has substantially smaller values. Next, the long axes of the chips are oriented substantially parallel to a predetermined plane. Next, a loose material constituting a mixture of the chips and the particles encapsulated in the polymer is deposited onto a press inlet feed unit while maintaining the orientation of the long axes of the chips. The loose material is then pressed in a direction substantially parallel to the predetermined plane such that it is compacted with the long axes of the chips aligned substantially parallel.